

Appl. No. 09/652,820  
Amendment dated April 18, 2005  
Reply to Non-Final Office Action of January 18, 2005

### **REMARKS/ARGUMENT**

Applicants herein amend independent claims 16 and 20 to recite the formulation used for the rotational flow vectors, as disclosed in the specification at page 11, line 7. Applicants have also added new dependent claims 24 and 25 which recite formulations for the projection matrix, as disclosed in the specification at page 13. No new matter has been added.

The Examiner has rejected claims 16-23 under 35 U.S.C. Section 103(a) as being unpatentable over Oliensis, "Structure from Linear or Planar Motion," IEEE 1996 (the "Oliensis 1996 paper") and Irani, "Multi-Frame Optical Flow Estimation Using Subspace Constraints" (the "Irani paper"). Applicants respectfully traverse. The Examiner argues that the Irani paper is not relied on for utilizing the linear motion of the successive image data. While this is true, the Examiner does rely on Irani for disclosing the claim elements of "dividing the successive image data into smoothing windows" and for disclosing the claim element of "computing a projection matrix which is block diagonal between smoothing windows and which is used to recover the scene structure", as recited in claims 16 and 20. See Office Action page 4. The Irani paper, however, does not disclose computing a "projection matrix" in the sense of the claim, largely in part because it is directed to a different formalism which does not take advantage of the geometric restrictions utilized in the present invention.

Dependent claims 24 and 25 have been added to even further refine the understanding of the "projection matrix" and illustratively demonstrate how the "projection matrix" takes advantage of the geometric restrictions available from using the shift data representation of the intensity data.

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Applicants respectfully submit that claims 16-25 represent patentable subject matter, and that the application is in condition for allowance. If the Examiner has any questions, please contact the undersigned at 609 951-2522. Authorization is hereby given to charge any fees which may be required, except the issue fee, to Deposit Account 14-0627.

Respectfully submitted,



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